Collection casting, services, and applications

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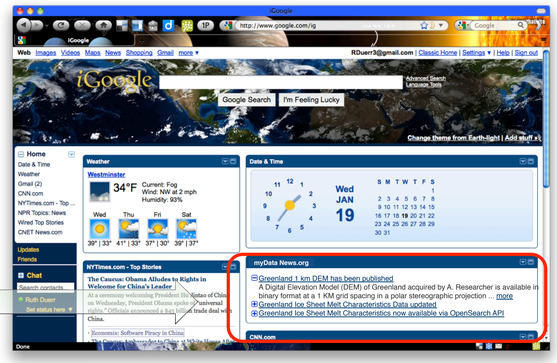
nsidc.org/libre

What if…

Finding data (and services that worked on that data) that matched your interests was as easy as subscribing to the news?



What would it take to make that happen?

- Simple standards-based mechanisms to advertise data and services (i.e., collection and service casting)
- Tailored aggregators looking for ads
- Aggregation-based news services and portals that allow user subscriptions

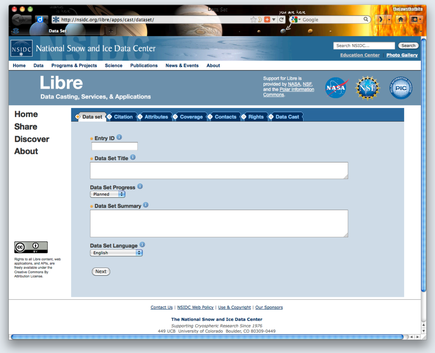
NSIDC's Libre project is working on all of these things!

Advertising data and services

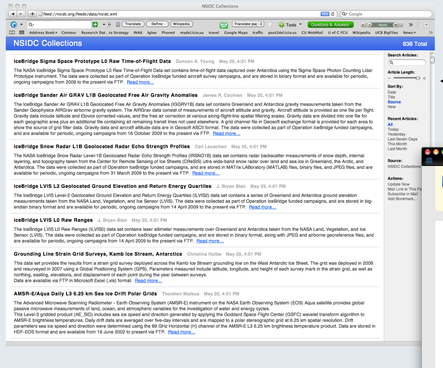
The Libre Collection Caster - a simple way to advertise your data

How to create a Collection Cast

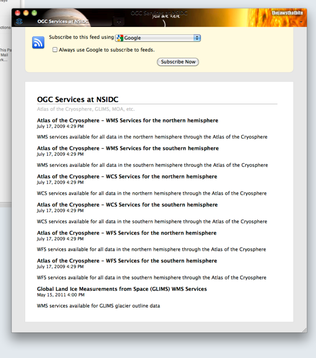
1. Launch the CollectionCaster tool and create and save your XML file.
2. Copy it to a publicly accessible Web server
3. Create a link to it from your Web page



NSIDC data collections and services are advertised at nsidc.org/feeds



◀ A feed for NSIDC's data catalog



A feed for NSIDC's OGC services ▶

Tailored aggregators

Finding casts

Search and crawler technology are used to find casts. The resulting casts can be aggregated and presented to the user.

Search API

Use search APIs to find casts for specific subject areas.

Seed the crawler with new sites

Cast Crawler

- Monitor known casts for updates.
- Find new casts on known sites.

Seed list → Schedule → Heritrix

Feed the aggregator

Aggregating casts

Casts are extracted from distributed feeds and combined together to create new casts that match specific search criteria (space, time, keyword, etc.).

An OpenSearch server implementation.

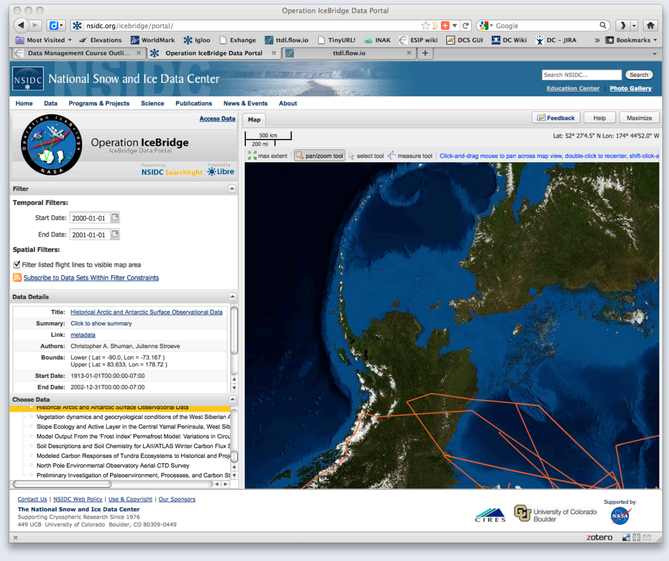
Aggregation Server

Support storage and retrieval of active cast entries.

PUT
Store a cast in the server.

GET
Retrieve a feed matching OpenSearch criteria.

Aggregation-based portals



The IceBridge[1] Portal is being implemented using Libre technologies

- OpenSearch is currently used to find relevant flights matching the user's query
- Next steps are to
  - Add the capability to search against multiple providers (including the Libre aggregator)
  - Combine collection casting with service casting to link particular kinds of services with portal functionality

[1] The IceBridge airborne multi-instrument missions collect data over Greenland and Antarctica to monitor rapidly-changing ice conditions in the cryosphere.